



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/714,200

11/14/2003

Stefan Ihde

67185-004

2663

29493

7590

12/01/2006

HUSCH & EPPENBERGER, LLC  
190 CARONDELET PLAZA  
SUITE 600  
ST. LOUIS, MO 63105-3441

EXAMINER

WERNER, JONATHAN S

ART UNIT

PAPER NUMBER

3732

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,200	<b>Applicant(s)</b> IHDE, STEFAN	
	<b>Examiner</b> Jonathan Werner	<b>Art Unit</b> 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 9/5/06.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 42-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 42-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This action is in response to Applicant's amendment received on 9/5/06.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/5/06 has been entered.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 59 and 61-66 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant positively claims "a direction of insertion" of the implant, however, it is not clear how such a "direction of insertion" can be a structural element of the implant. For example, in claim 61, Examiner does not

Art Unit: 3732

understand how the claimed first distance can be closer to the direction of insertion or how a first distance between the two radii can be greater than a second distance between the same two radii. Though Applicant remarks that said claims are supported by Figures 8-10 and the text of page 9 in the original specification, Examiner does not clearly understand how said support relates to the claims in question as currently presented. As to claim 65, it is not understood how the claimed trailing edge can provide a wider distance between two radii. As to claim 59, it is not understood how the first radius varies with its direction.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 59 and 61-66 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant positively claims "a direction of insertion" of the implant, however, it is not clear how such a "direction of insertion" can be a structural element of the implant. For example, Examiner does not understand how the claimed first distance can be closer to the direction of insertion or how a first distance between the two radii can be greater than a second distance between the same two radii. In said claims, the direction of insertion acts as a functional statement of intended use and, as understood, does not add any further structural elements to the implant sufficient to overcome the art of record, which is capable of having the same direction of insertion. As to claim 65, it is not understood how the claimed trailing edge

can provide a wider distance between two radii. As to claim 59, it is not understood how the first radius varies with its direction.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 42-48, 54-59, and 61-66 are rejected under 35 U.S.C. 102(b) as being anticipated by Albrektsson et al. (WO 01/24737). As to claims 42 and 58, Albrektsson discloses an osteal implant comprising a post (5), said post having a first end having a mount (23) for a device (i.e. 25) to be implanted and a second end being attached to a base (20); said base being substantially orthogonal to said post in at least two non-parallel directions (Figures 1-4), said base being substantially planar; at least one of a top surface or a bottom surface of said base having a first height at a first radial distance from said post and a second height at a second radial distance from said post (i.e. 22; Figures 5-6); said first height being maintained through at least two directions radial to said post; and said second height being maintained through at least two directions radial to said post (22, Figures 5-6). As to claims 43 and 44, Figure 6 shows the first height is maintained through an arc and Figure 5 shows that the first height and the second height alternate periodically. As to claims 45 and 46, Figure 5 shows the alternating heights comprise corrugations and at least one of said heights has a sharp

Art Unit: 3732

edge. As to claims 47 and 48, Figure 5 further shows the implant base comprises a third height wherein said third height is a different radial distance from the post than the first and second heights, and wherein Figure 2 shows the heights can vary in a radial direction to comprise a spiral. As to claim 54, Figures 5 and 6 show at least one of the first or second heights repeat and vary in extent radially. As to claims 55-57, Figures 5 and 6 show the second height is at a marginal zone of said base, said marginal zone being substantially along a portion of a periphery of said base and wherein the marginal zone comprises reentrant angles (Figure 5). As to claim 59, Figure 2 shows the first radius varies with its direction. As to claims 61-63, as understood by Examiner, Figure 5 shows a first distance between the first radius and the second radius and wherein Figure 8 clearly shows a direction of insertion of the implant. As to claim 64, Figure 5 shows the implant further comprises a leading edge facing the direction of insertion and a trailing edge facing away from said direction. As to claims 65 and 66, the trailing edge leads into a wide distance between the first and second radii, wherein such a distance is capable of allowing osseointegration to occur (page 12, line 30).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 49 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrektsson in view of Baege et al. (US 5,965,006). Albrektsson discloses an osteal implant as previously described, but fails to show at least one of said portions comprises a bowl-like depression. Baege, however, teaches a prosthetic device for implanting in bone which has a portion that comprises bowl-like depressions (Figure 1a). Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make at least one of the portions of the implant have bowl-like depressions substantially vertical on a base oriented opposite from the direction of insertion in order to provide a sufficient anchoring depth for ingrowing bone matter during osseointegration as taught by Baege.

7. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albrektsson. Albrektsson discloses the osteal implant as previously described, including the radial heights are approximately 0.3 mm (page 12, line 33). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the heights vary in a range from about 0.05 mm to about 0.25 mm since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

8. Claim 51 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albrektsson in view of Kawahara et al. (US 4,964,801). Albrektsson discloses an osteal

implant as previously described, but fails to show the base has an outer perimeter that includes at least three substantially straight edges. Kawahara discloses an implant with such a perimeter (Figure 3; column 3, lines 3-9). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to make the outer perimeter include at least three straight edges in order to firmly anchor the base portion as taught by Kawahara.

9. Claim 52 is rejected under 35 U.S.C. 103(a) as being unpatentable over Albrektsson in view of Karmaker (6,186,791). Albrektsson discloses a dental implant as previously described, but fails to show the first and second heights comprise barbs oriented to resist extraction of the implant in a direction opposite the direction of insertion. Karmaker, however, teaches a dental post implant comprised of barbs (Figure 1). Therefore, it would have been obvious to one having ordinary skill in the art to add barbs to the implant portions in order to aid in the retention of the implant in the bone as taught by Karmaker.

10. Claim 60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Albrektsson in view of Grafelmann (US 4,538,304). Albrektsson discloses an osteal implant as previously described but fails to show the first radius and thickness varies. Grafelmann, however, teaches a prosthetic device for implanting in bone which has a base with a first height (top of Figures 2,4) and a second shorter height that is along a portion of a periphery of said base (bottom of Figures 2,4), wherein the thickness of the



Art Unit: 3732

base varies. Therefore, it would have been obvious to one having ordinary skill in the art at the time of applicant's invention to make the thickness of the base vary in order to promote a better retention of the device within the bone and the surrounding body tissue as taught by Grafelmann.

### ***Response to Arguments***

11. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

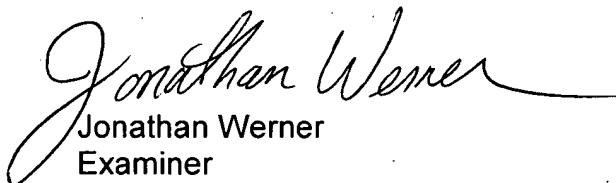
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Werner whose telephone number is (571) 272-2767. The examiner can normally be reached on Monday-Friday.

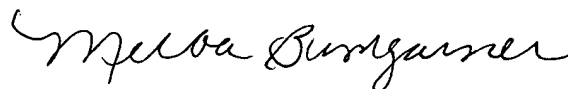
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Jonathan Werner  
Examiner

11/19/06

  
MELBA N. BUMGARNER  
PRIMARY EXAMINER